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ABSTRACT

Museums, zoos, nature centers, science centers, aquariums, and other similar places provide an opportunity for lifelong learning in a nonthreatening setting for most adults. They are places where nonformal learning (outside the formal learning setting and characterized by voluntary participation) can easily take place through such methods as tours, informational signage, exhibits, and demonstrations, and they can also offer more formal education through workshops and classes. Hundreds of millions of people visits these institutions, and probably more than half of them are adults. Many adults come to these institutions for primarily social reasons, so their learning opportunities may need to be constructed in a manner that supports the social activity. To engage adult visitors effectively, education programs can use adult education principles to enhance the visit for the purpose of learning. The places must be user friendly and comfortable. Increasingly, institutions are using interpretive layering, which provides information in small, layered levels so that visitors can choose to absorb the essence of the exhibit without filtering through complex descriptions or discussions. Whether the purpose of the visit is social or educational, adult visitors attend attractions with an overall positive attitude. Learning is a lifelong process, and the role of the educator in this setting is to enhance the attraction and help guide the adult visitor to new levels of understanding and action. (Contains 32 references.) (KC)

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ERIC Digest No. 173

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ERIC CELEBRATING 30 YEARS - 1966-1996
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Adult Learning in Nonformal Institutions

Museums, zoos, nature centers, science centers, aquariums, and other similar institutions provide a tremendous opportunity for lifelong learning in a relatively nonthreatening setting for most adults (Schroeder 1970). Many of these attractions and museums include education as a part of their missions (see, for example, Allmon 1994; Chizar, Murphy, and Illiff 1990; Conway 1982) and the popularity of these places as providers of both recreation and education is well established (Chobot 1989). This *Digest* explores some of the central concepts of adult learning in these settings. A brief discussion of nonformal learning and the adult visitor lays the foundation for the examination of ideas in the literature on (1) what is educational in attractions, (2) opportunities and challenges to education in these settings, and (3) the application of adult learning theory to zoo, museum, center, and attraction education.

Adult Visitors and Nonformal Learning

Nonformal learning is often defined by activities outside the formal learning setting, characterized by voluntary as opposed to mandatory participation (Crane et al., 1994). Mocker and Spear (1982) offer a taxonomy of adult learning wherein nonformal learning is identified as learners holding the objectives for learning with the means controlled by the educator or organization. Maarschalk (1988) contrasts nonformal learning (i.e., outside formal settings—such as field trips and museum visits) with informal learning (i.e., that which grows out of spontaneous situations).

In zoos, museums, nature centers, and attractions, adult learning can range from formal through nonformal to informal. Workshops, lectures, classes, and educational "shows" are some of the common formal adult learning programs; tours, informational signage, exhibits/interactive displays, and demonstrations are often considered nonformal learning constructed by the education staff; the individual visitor and the setting create informal learning situations (Diem 1994).

For whom are these opportunities constructed? In a study of zoo visitors, Conway (1982) found that between 55-70% of all zoo visitors are adults. Hundreds of millions of people visit museums, zoos, nature centers, science centers, and other attractions (Falk and Dierking 1992). In North America, for example, over 100 million people visit zoos and aquariums each year (Eaton 1981; Howard 1989; Marshall 1994), and over 500 million visit museums (Naisbitt and Aburdene 1990). This translates to a tremendous population of learners. Adults more often than children suggest the visit (Cheek, Field, and Burdge 1976) and are also the societal decision makers whose actions directly affect the attraction, whether the decision is simply to visit or to support funding for expansion or renovation (Diem 1994). It makes sense, therefore, to consider how better to serve the learning needs of these adult visitors.

Not all visitors come for the purpose of learning. Beer (1987), for example, found slightly over half the visitors came to a museum with learning as a purpose. Other researchers (e.g., Hood 1983; Miles 1986) found much lower numbers. In a study by Hood and Roberts (1994), younger adult visitors had greater social goals in attendance, and, of the 18- to 34-year-olds, fewer than one-third attended for family outings. Studies such as these suggest there are many adult visitors attending for primarily social reasons and that learning may need to be constructed in a manner that supports the social activity.

Learning, however, is not restricted to those who attend with the intent of learning. One study in an historical center found most visitors could recall historical facts from the exhibits and could also assign meaning to the exhibits (Boggs 1977). In another study, the knowledge gain of adult visitors was no greater for those who came to learn than those who came for social reasons (Miles 1986). Overall, however, the research in this arena suggests that adult visitors rarely demonstrate significant recall of facts and concepts encountered during visits (Falk and Dierking 1992), which creates both opportunities and challenges for the institutions.

Educational Systems

Many nonformal organizations or institutions have education staff or curators who oversee the education and outreach functions. Often supported by docent or volunteer corps, these departments develop signage, exhibits (including interactives and immersion exhibits), outreach, visitor services, guided tours, program/show notes, workshops, lectures, shows, and speakers bureaus. Often small in personnel numbers, these departments frequently are responsible for how people experience the visit.

People come to these places to see the "stuff" (Watkins 1994). The educational opportunities arise out of the very human reaction to these real things—plants, animals, art, natural wonders, or collections (Resnicow 1994). The nature of an attraction, however, provides the educators with but an instant to capture, hold, and engage attention (Roberts 1994). The challenge, then, is to use the nature of the attraction to turn what may appear to be entertainment into a tool with which to encourage visitors in terms comfortable to them so they may be drawn to deeper levels of involvement (Resnicow 1994).

Applying Adult Learning Theory

Adults come to the learning with an array of experiences and lifelong constructed knowledge. Often, lifelong learning centers such as zoos, museums, and science or nature centers must correct misinformation before new or desired learning can occur (Borun, Massey, and Lutter 1992). Within the visit, the free choices of attendance and learning create a fundamental dependency on addressing the interests and the beliefs of the adult learner (Falk and Dierking 1992).

Destination sites are often viewed as having the potential to introduce people to art, ideas, history, nature, and knowledge. These sites, however, can do more than create interest or inspire curiosity (Watkins 1994). They can allow visitors to become engaged with ideas, even when the visit is for social purposes (Lucas 1991).

To engage the adult visitor effectively, education programs can use traditional adult education principles to enhance the visit for the purpose of learning. One of Knowles' (1970) assumptions of the adult learner is that learners seek information that fits their societal roles. Visitors to attractions consciously or subconsciously seek to learn about themselves and their cultural heritage (Kramer 1994). Adults visit those places where they feel comfortable, places that are nonintimidating, user friendly, and speak in the language of the uninitiated public (Resnicow 1994).

Attractions themselves present experiences; it is the nature of an experience to be determined and interpreted largely by the individual (Boud, Keough, and Walker 1985). The education staff are ultimately responsible for creating the opportunities for learning that may arise from the experience of the visit. The fields of interpretation and museum curation continually assess the impact of placement of kiosks, signs, interactives, and displays on learning.

Increasingly, institutions are using interpretive layering, which provides information in small, layered levels so that visitors can choose to absorb the essence of the exhibit without filtering through complex descriptions or discussions. Learners can engage in giving longer time to selective data or discussion. A trend in exhibit interpretation is in simplifying information to reduce the cognitive difference between the actual scholarship source and the lay visitor (Watkins 1994). Posing issues as questions encourages visitors to confirm propositions actively in the exhibit with the goal being that the visitor gains ownership of ideas the educator seeks to cover or to share with the visitor (Spicer 1994).

Conclusion

Whether the purpose of the visit is social or educational, adult visitors attend attractions with an overall positive, affective attitude. Learning is a natural lifelong process, and learning episodes can vary from incidental learning to intentional learning projects (Tough 1972). Learning in attraction settings can rely on the natural occurrence of the process of learning and can be enhanced with guidance and facilitation through construction of learning opportunities by educators (Heimlich 1993).

The haptic need for adults to experience something physically (touch, feel, smell, etc.), rather than read or hear about it, is a major reason nonformal institutions exist (Allmon 1994). Natural learning, as described by McCombs et al. (1991), includes action, volition, internal mediation, and individual meaning making. In the nature of their attraction, nonformal institutions provide a setting where this natural learning can occur. Ultimately, the role of the educator in this setting is to enhance the attraction and help guide the adult visitor to new levels of understanding and action.

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